

The Case for a Bunched Jacket

By John Hunt, Jr.

The Single Bullet Theory (SBT) in the assassination of President John F. Kennedy lives or dies at the mercy of a number of evidentiary hurdles it must overcome on its way to legitimacy. If the SBT fails on any level, that would be tantamount to proof of conspiracy in the assassination of the President. Various commentators have argued that the positions of the bullet holes in the clothing worn by the President prove that a single bullet could not have passed through that clothing and the President's body in such a way as to continue its path into the body of Governor John Connally. In this essay I shall use several different types of evidence to show that these commentators are wrong, and that their arguments fail to disprove the Single Bullet Theory.

The Warren Commission and the House Select Committee on Assassinations (HSCA) each independently determined that the SBT was valid. Their findings differ as to the precise timing of the SBT shot, but agree that that is what happened on November 22, 1963. Their SBT in a nutshell is this: in order for Lee Oswald to be the SBT assassin of JFK, one bullet must have gone through both John Kennedy and Governor John Connally, who was riding in front of JFK in the limousine and who was also wounded. The timing restraints for the shooting sequence as imposed by the Zapruder film (Z-film) dictate that one shot must have missed the limousine entirely, one bullet must have hit JFK in the head, and the remaining bullet must have caused all of the other wounds. For Oswald (or anyone else) to be the SBT assassin, that one bullet, CE-399, commonly referred to as the "magic bullet," must have entered JFK's back, traversed his neck, and exited at the throat. The bullet must then have entered John Connally's back and traversed his torso, shattering a large portion of his fifth rib where it then exited beneath the right nipple. CE-399 then must have entered the dorsal side of Connally's right wrist, cracked his radius bone and exited through the palmar side of the wrist. Lastly, it must have entered Connally's left thigh, then dislodged itself, to be recovered at Parkland Hospital on an emergency room stretcher. An incredible journey to be sure. But is it an impossible one?

Some of the hurdles the SBT must successfully overcome are: can a shot from the Texas School Book Depository sixth floor "sniper's perch" hit JFK in the back, and if so, at what points along Elm St.? Are there any temporary obstructions? Does the trajectory from the "sniper's nest" line up through both men? Could CE-399 have done the job and remain in near perfect condition? The holes in the back of JFK's clothing are at or below the level of the throat wound of exit. How can a missile hit that low and still emerge from JFK's throat if the shot came from high above and behind?

The focus of this essay will be very narrow. It will deal with the question of whether or not the "low" location of the bullet holes in JFK's shirt and coat create an insurmountable hurdle, and thus destroy the SBT. If the low clothing holes are an accurate indicator of the location of JFK's back wound, then under that scenario, the missile clearly entered too low to exit at Kennedy's

throat and still hit Connally. The SBT would crumble, conspiracy thus proven. What evidence, then, must we sort through to get to the crux of the issue?

There are 6 sources at our disposal relative to determining the location of the back wound as it relates to the clothing holes. They are:

1. The location of the back wound as described in the autopsy report filed by J. J. Humes, Pierre A. Finck, and "J" Thornton Boswell.
2. The photographs of the back wound taken during the autopsy.
3. Eyewitness testimony.
4. The HSCA determination of the back wound location.
5. The location of the bullet holes in JFK's clothing.
6. The photographs taken during the Dallas motorcade that show the orientation of JFK's clothing and posture.

Let us now examine each of these sources in turn.

1. Of the back wound location, the autopsy report states: "This wound is measured to be 14 cm. from the tip of the right acromion process and 14 cm. below the tip of the right mastoid process". This back wound location is useless as far as any reconstruction is concerned for the simple reason that both anatomic reference points it uses are mobile. Thus, the wound location could vary depending upon the orientation of those two mobile points to each other. Further, those two points vary in orientation from person to person. The autopsy report does not definitively describe the location of the back wound; hence, the back wound could be as low as the neck wound.
2. The autopsy photographs of the back wound show it to be high on the back. Exactly how high is debatable, as the manner in which the body is positioned in the photographs distorts the perspective of where the wound would appear relative to Kennedy's posture at the time he was shot. In the photographs, JFK's body has been rolled onto its left side. Gloved hands are clearly lifting the right shoulder off the autopsy table, thus torquing the torso.



These photographs are also useless in determining an exact back wound location in relation to a vertebra as the vertebrae are not visible in the extant photographs. It would seem from those photographs that the back wound could be above the neck wound.



Unfortunately, the autopsy photographs do not settle the back wound location issue. The back wound could still be as low as the neck wound.

3. The limits of space, combined with the clear and convincing photographic evidence yet to come, obviate the need to elaborate on all of the eyewitness testimony. This testimony is both contradictory and subject to interpretation. Further, my research indicates that the difference between the impact point of a "smoothly oriented" jacket shot and a "bunched up" jacket shot is little more than two inches. The reader is invited to contact me via e-mail if he or she is curious as to how I arrived at the aforementioned figure. That essay, explaining in detail my methodology, is not yet finished. The overall difference between the "low" and the "high" back wound location, I believe, is a very small distance, indeed. The available eyewitness testimony describing the back wound is vague and imprecise as to a specific anatomic location we can pinpoint and is therefore of little more help than the autopsy report. That is not to say, however, that the following eyewitness testimony is necessarily deficient. Rather, I believe the problem is a combination of the generally accepted notion that eyewitness testimony is the least reliable type of evidence, the quagmire of semantics, and the small overall difference in location at issue.

Special Agent Glen Bennett rode in the Secret Service follow-up car on 11-22-63: "I saw a shot hit the Boss about 4 inches down from the right shoulder".

"About" 4 inches? Give or take an inch? Where does Bennett start the shoulder? Bennett's testimony does not help locate the wound with specificity.

From the transcript of Secret Service agent Clint Hill's Warren Commission testimony on the subject:

Representative BOGGS: Did you see any other wound other than the head wound?

Mr. HILL: Yes, sir; I saw an opening in the back, about 6 inches below the neckline to the right-hand side of the spinal column.

Where does Clint Hill start the "neckline?" "About" 6 inches below the neckline? Give or take an inch? Up or down? Again, no specificity.

From the transcript of Secret Service agent Roy Kellerman's Warren Commission testimony on the subject:

Mr. SPECTER: All right. What other wounds, if any, did you notice on the President?

Mr. KELLERMAN: The other wound that I noticed was on his shoulder.

Mr. SPECTER: Which shoulder.

Mr. KELLERMAN: Right shoulder.

Mr. SPECTER: And was it--what was its general position with respect to the breadth of the back?

Mr. KELLERMAN: Right straight.

Mr. SPECTER. No. Upper shoulder, lower shoulder; how far below the lower neckline would you say?

Mr. KELLERMAN. The upper neckline, sir, in that large muscle between the shoulder and the neck, just below it.

Although cryptic, Kellerman appears to be placing the wound high on the back at the border of the shoulder and neck. Again, we are left to generate in our imagination a mental picture of exactly where that point is.

From the transcript of Secret Service agent William Greer's Warren Commission testimony on the subject:

Mr. SPECTER: Approximately where in the President's back was the bullet hole?

Mr. GREER: It was, to the best of my recollection it was, back here, just in the soft part of that shoulder.

Mr. SPECTER: Indicating the upper right shoulder area?

Mr. GREER: Upper right, yes.

Again, we have no firm anatomic orientation upon which to hang our hat.

FBI agents James F. Sibert and Francis X. O'Neill attended the autopsy of John Kennedy and submitted a report, part of which follows:

"During the latter stages of the autopsy, Dr. Humes located an opening which appeared to be a bullet hole which was below the shoulders and two inches to the right of the middle of the spinal column.

This opening was probed by Dr. Humes with the finger, at which time it was determined that the trajectory of the missile entering at this point had entered at a downward position of 45 to 60 degrees. Further probing determined that the distance traveled by this missile was a short distance inasmuch as the end of the opening could be felt with the finger".

Sibert and O'Neill state "...a bullet hole which was below the shoulders and two inches to the right..." Again we face the same problem: where do Sibert and O'Neill start the shoulder? Oddly, they don't list a measurement indicating how far below the "shoulders" that hole was located.

This testimony fails to provide a specific anatomic point of orientation.

The death certificate, signed by the President's physician, Admiral George C. Burkley, describes the wound as follows:

"A second wound occurred in the posterior back at about the level of the third thoracic vertebra[T3]".

(I list the Death Certificate as eyewitness testimony for the reason that Admiral Burkley attended the autopsy of John Kennedy but did not actively participate.)

Notice that Admiral Burkley said "about" T3. "About" what? About one vertebra? Up or down the spine one vertebra? Two vertebrae, perhaps?

Note also that the vertebrae are not visible in the autopsy photos. The only way to precisely correlate the back wound inshoot with a specific vertebra without exposing the spine (which the autopsists did not do) is to palpate the vertebrae and count your way down the spine. I have not seen any testimony to the fact that either Humes, Finck, or Boswell palpated the spine that night. Burkley either guessed at the T3 location or was furnished a guess by an autopsist who neglected to include an anatomic description of that specificity in the final autopsy report.

I long cited the testimony of various eyewitnesses to argue that the wound may have been too low to comport with the SBT trajectory. However, closer study of the issue as a whole has shown me that the eyewitness testimony does not settle the issue.

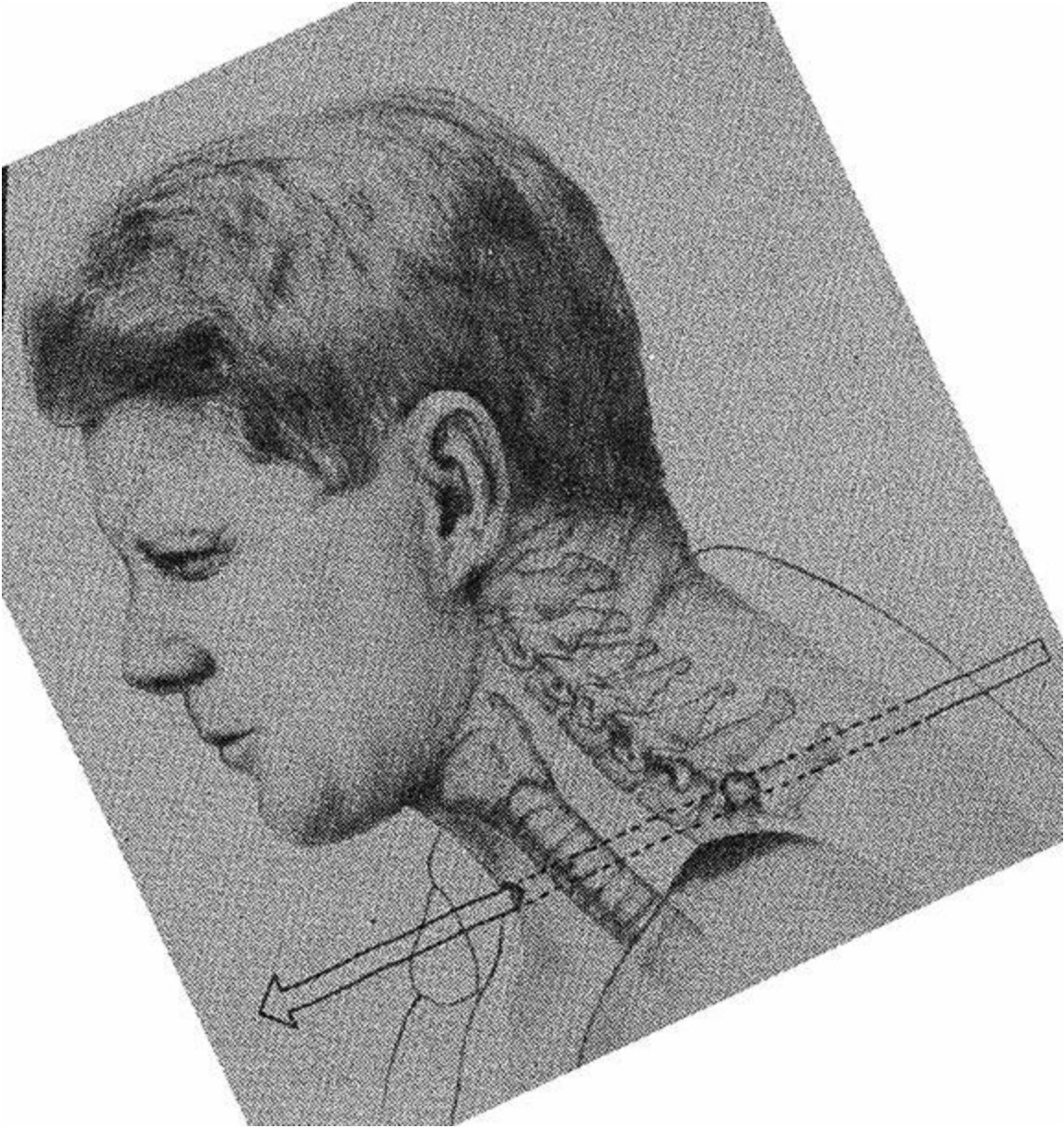
The Case for a Bunched Jacket

Part Two

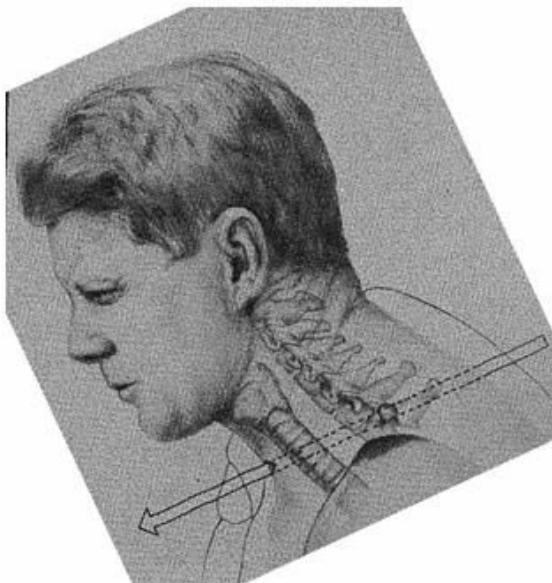
4. HSCA

The House Select Committee on Assassinations (HSCA) concluded that John Kennedy's back wound was at, or slightly above, the level of the throat wound. The HSCA also found that Kennedy and Connally were hit by the same bullet at Zapruder film frame 190 (Z-190). That finding created a problem for the HSCA because a flat (horizontal) trajectory through Kennedy could not have come from the TSBD sixth floor window and continued on to wound Governor Connally. That trajectory could not work even if the path of the bullet was deflected. Even if the bullet struck Kennedy that low on the back and was deflected upward to meet the exit wound at the lower neck, the bullet would have to change course in mid-air to arrive at Connally's back wound, an obvious impossibility.

To reconcile the differing findings of fact, the HSCA was forced to misrepresent Kennedy's posture at the time he was wounded. Assuming, *arguendo*, that the HSCA was correct about a Z-190 back wound, and that that bullet transited Kennedy's body through the neck on a flat horizontal plane, Kennedy would have to have been leaning significantly forward to allow the bullet to strike Connally. Even a cursory examination of the relevant photographic evidence reveals that not to be the case. The following, JFK Exhibit F-46, is the HSCA version of the JFK posture necessitated by their disparate findings.

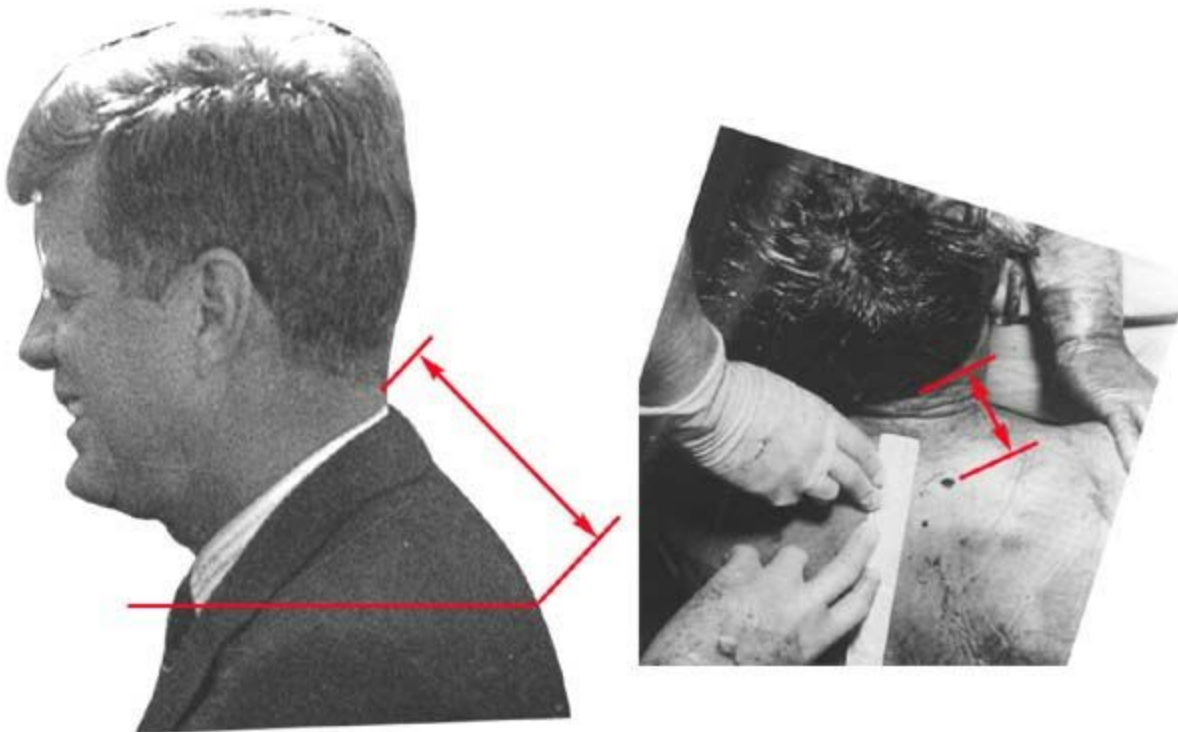


Compare the HSCA's version of JFK's posture to that evidenced in the Croft photograph.



Croft was taken 29 Z-frames, or 1.58 seconds, before Z-190. JFK's posture in the Croft photograph does not resemble the HSCA version. Did JFK radically change his posture between Z-161 and Z-190? No. JFK did nothing more between those frames than rotate his head to the right and raise his forearm to wave. Even a cursory viewing of the Z-film proves this. More important, the autopsy photograph of the back wound, when compared to a profile photograph taken that day, reveals the HSCA's mistake. The following photographic comparison (revised from the original, which was not an accurate scaling attempt) has the autopsy photograph and the Love Field photograph scaled as closely as possible to one another. Unfortunately, the nature of the pose in the autopsy photograph verses that of the Love Field profile photograph precludes a 100% precise correlation.

The Love Field photograph on the left below shows the back wound entrance point at the same level as the throat wound per the HSCA Photographic Evidence Panel. While there are arguments both for and against the shirt slits having been caused by the passage of a bullet, my reading of the evidence leads me to believe they were indeed made by a bullet. It is for that reason that I used the holes in the shirt front as the starting point. If the HSCA Photographic Evidence Panel was correct that the wound pattern was anatomically level, the horizontal red line below would represent the inshoot location on the back.



Notice the substantial distance between the hairline and the entry in the back in the Love Field photograph. Now compare it to the *hair-to-inshoot* distance in the autopsy photograph, which shows it to be much closer to the hairline. Were the back wound level with the hole in the throat, the *hair-to-inshoot* distance would appear significantly greater than is the case. It follows, therefore, that the back wound is higher than the HSCA concluded and is higher than the throat wound. While Kennedy's head is tilted back toward the camera in the autopsy photo which would tend to decrease the apparent *hair-to-inshoot* distance somewhat, it does not appear to be sufficient to resolve the discrepancy. I leave it to the reader to decide for himself whether the two photographs have been scaled closely enough for a valid comparison to be drawn. I also leave it to the reader to decide for himself whether the *hair-to-inshoot* distance on the profile photograph is greater than the distance in the autopsy photograph. Imagine in your mind's eye how much the autopsy photograph would have to be enlarged such that its *hair-to-inshoot* distance would match the profile version. It would be enormous, and clearly over scaled. It is for the above reason (and others) that I believe the HSCA placed the back wound too low. If my analysis is correct, the HSCA Photographic Evidence Panel's wound-pattern conclusion is not correct. The back wound would be higher than the throat wound.

5. The holes in the back of JFK's shirt and jacket are indeed too low to allow a bullet fired from the "sniper's nest" to emerge from Kennedy's throat and cause Governor Connally's back wound. The holes have been measured by the FBI, the Clark Panel (CP), and the House Select Committee on Assassinations (HSCA). The measurements vary slightly, but are close enough to determine that the same missile made the respective holes in the shirt and jacket. The locations determined are as follows:

Distance downward from jacket collar to hole:

FBI: 13.75cm.

CP: 12cm.

HSCA: 13.5cm.

Distance to the right of jacket midline:

FBI: 4.5cm.

CP: 5cm.

HSCA: 5cm.

Distance downward from shirt collar to hole:

FBI: 14.7cm.

CP: 14cm.

HSCA: 14cm.

Distance to the right of shirt midline:

FBI: 2.9cm.

CP: 2.5cm.

HSCA: 2.5cm.

Note that the only consensus between the sources in the above table is the shirt hole measurements as described by the Clark Panel and the House Select Committee on Assassinations. The measurements do show, however, that the jacket and shirt holes align well enough that there can be no question but that the same missile made them. At one point in time those two holes were in exact alignment. In order for the holes to align precisely, one or both garments must have been slightly askew.

If those bullet hole locations are taken at face value, the SBT fails. So the question now becomes: "What was the orientation of JFK's clothing at the time the back wound was inflicted?" That question leads us to source number 6, the photographs.

I would like to make one point before I address the photographic record, a record that is ripe with photographs and films of John Kennedy's jacket, yet shows precious little of his shirt, and nothing of the back of the shirt which concerns us here. In regard to the photographic record and the shirt back, it is inappropriate to speculate about that which cannot be seen. Yet, the issue must be dealt with in some fashion. Because the holes in the shirt and jacket align with one another, and if the jacket was flush and in the normal position when the shot struck, then the shirt must also have been flush and in the normal position. Conversely, because the holes align, if the jacket was elevated when the shot struck, the shirt must also have been elevated. That logic serves to conjoin the discussion about the photographic record of the shirt and the coat for the purpose of this essay.

6. The motorcade photographs show JFK seated in the limousine against the far right side of the rear seat. They also show that from the start of the motorcade, JFK perched his right arm on the side of the limousine, taking it down only occasionally, and for brief periods of time. This arm posture relieved Kennedy of the burden of suspending his arm while waving during the long motorcade. The result was that JFK's elbow was raised nearly to the same level as his shoulder.



JFK maintained this general posture during the entire ride through Dallas. It is this very posture which raised the back of his jacket up. The following photographic compilation amply demonstrates this point.



All rights reserved
Copyright 1999
John Hunt, Jr



I have duplicated the effect this posture has on a suit jacket. Actually, the effect duplicated itself. It is this posture which precluded the possibility of JFK's jacket riding in the normal position, as the photographs demonstrate.

The most important photographs relating the position of JFK's jacket are those taken on Elm St. immediately before or during the shooting. These photographs, when combined with a comparison of their respective Zapruder film frames, and the Zapruder film as a whole, offer proof of the orientation of the President's clothing at the time of his assassination.

I shall discuss the relevant Elm St. photographs in the chronological sequence in which they were taken.

The Case for a Bunched Jacket

Part Three

Jim Towner took the following photograph as the presidential limo rounded the corner between Houston and Elm Sts. John Kennedy's jacket can be seen to rise up and around the jacket collar at the back of the neck. Further, the shirt and jacket collars converge at a point that is about even with the bottom of Kennedy's ears. The following photo compilation has Towner #2 on the left, and another on the right taken from a similar, slightly higher, viewpoint.



The Towner photograph clearly shows the President's jacket was elevated as the limousine turned onto Elm. St.

Next is Willis #4.



This photograph was taken approximately 2 seconds after Towner #2. The photograph is lacking in detail, yet the shirt collar appears abnormally large. This is probably due to the blur caused by the incorrect panning on the part of Mr. Willis. Robert Croft exposed one of the most important photographs in the period relating to John Kennedy's assassination.



This photograph, his third of the day, was taken at the same instant as Zapruder Frame 161 (Z-161) and 3.49 seconds before JFK emerges from behind the Stemmons freeway sign in obvious distress at Z-225. As you can see in the following close-up of the Croft photograph, the jacket is elevated to the level of JFK's ear.



Compare the bunching evidenced in the Croft photograph to the smooth orientation of the jacket in the profile photograph taken just after JFK disembarked Air Force One at Love Field.



The difference between the respective jacket orientations is quite obvious. Clearly, then, the Croft photograph proves that the jacket was significantly raised at a second point along Elm St. Z-161 shows the Croft bunch as it appeared from Abraham Zapruder's viewpoint. JFK's right shoulderline is clearly elevated.



The Croft photograph demonstrates that JFK's jacket was elevated shortly before he was shot in the back. Croft #3 is not the last relevant Elm St. photograph, however. There are two other

photographs that show the back of the President before he disappears from view behind the sign in the Zapruder film.

The next relevant photograph, sequentially, is Betzner #3.



Hugh Betzner snapped this photograph 1.37 seconds after Croft, and at the same moment as Z-186. The following close-up reveals that the right and left shoulderlines are markedly dissimilar. JFK's left shoulderline drops away from the neck at a shallow, relatively constant, angle. In stark contrast, the right shoulderline intersects the neck at a higher level than the left, and unlike the left shoulderline, has a distinctly arched shape.



Compare the Betzner photograph to one taken by C. Stoughton, White House photographer, on the morning of the assassination.



The difference in the appearance of the jackets is remarkable. The Betzner photograph proves that the jacket is still elevated at Z-186.

Lastly, we must consider the Willis #5 photograph. Willis #5 is the last extant photograph taken of JFK's back on Elm St before he emerges from behind the sign at Z-225. Willis #5 is most often pointed to as proof that JFK's jacket was not raised when the back wound was inflicted.



Phillip Willis took this photograph at Z-202, 2.24 seconds after the Croft photograph, and .874 seconds after Betzner. Clearly Willis #5 is of inferior quality as compared to Croft and Betzner. However, when Willis #5 is rotated to correct for the photographer's tilted camera, we see that the jacket shoulderline rises from left to right as it crosses the back. The right side shoulderline is still higher than the left. The jacket is still elevated.



If you follow JFK's actions in the Z-film after Z-161, you will see that the only post-Croft/Z-161 posture change by the President before he disappears behind the sign is a clockwise head rotation and an upper arm rotation of about 20-40 degrees.

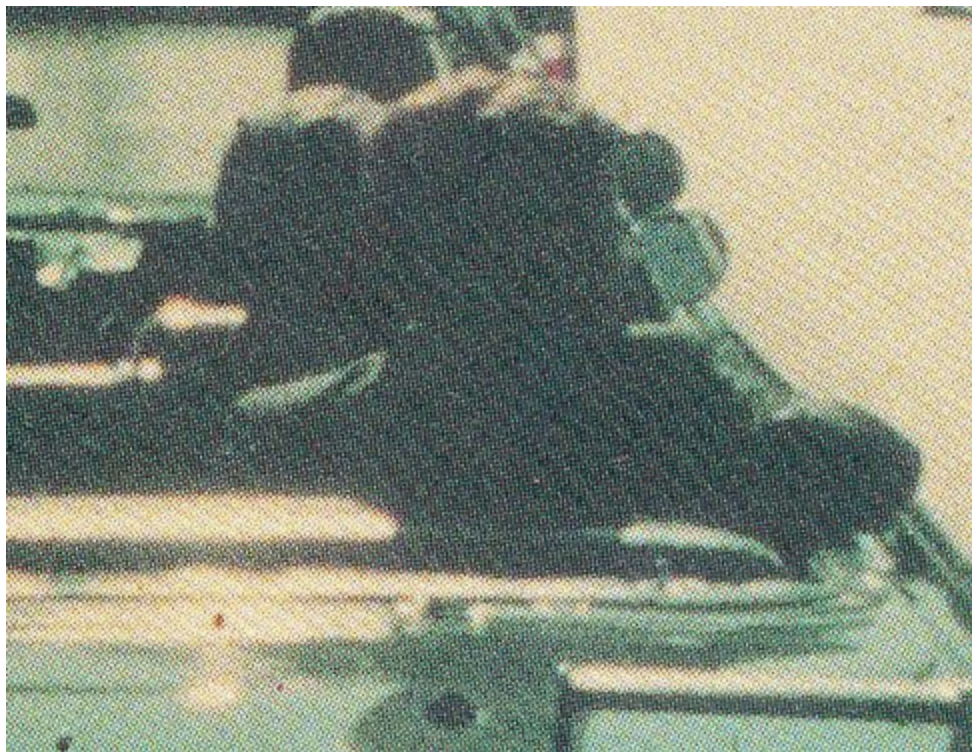
Did either of these actions alleviate the bunch in the jacket? My experimentation has shown that the answer is no, they could not have. The photographic record bears this out as well. Only leaning forward and lowering the elbow could unpin the jacket, allowing it to fall. JFK does nothing of the sort in the Z-film. Further, the following photograph shows the jacket severely bunched while JFK is in a position very similar to that seen in the Zapruder film at Betzner #3/Z-186. I have provided a photo of JFK standing for comparison purposes.



As we have seen, none of JFK's actions in the Zapruder film could alleviate the bunching of the jacket. If we watch the Zapruder film between Croft (Z-161) and Betzner (Z-186) and Willis (Z-202) and Z-225, we see that JFK does nothing in the intervening 3.50 seconds to force the jacket back down. After JFK emerges from behind the sign, he is seen raising his elbows even further. This action could only exacerbate the jacket elevation. It seems highly improbable, in fact just short of impossible, that while he was behind the sign, JFK lowered his arm from the side of the limousine (thus lowering the jacket) was shot in the back, then raised his arm again in time for that arm to be in the position seen at Z-225.



Every Dallas motorcade film or photograph I have seen shows the jacket to be elevated. A film taken by Dave Powers, who was riding in the Secret Service back-up car just behind the President, shows JFK's jacket elevated even as the motorcade begins and remains so throughout the ride through Dallas.



I have searched in vain for a Dallas motorcade photograph that shows JFK's jacket in the normal and smooth configuration we see in the Love Field profile photograph. The fact that I have not been able to find one single motorcade photo devoid of bunching is remarkable. Even more remarkable is the fact that I have made numerous queries of the JFK assassination research community for just such a photograph, without success.

The photographic record shows that John Kennedy's jacket was severely bunched at the base of the neck throughout the Dallas motorcade right up until, and including, the moment he was shot in the back. Some of the eyewitness testimony that we have examined is in direct conflict with that photographic record. If that photographic record were even slightly ambiguous about the condition of John Kennedy's jacket, and thus his shirt, the eyewitness testimony would carry more weight. That is not the case, however. Ultimately, the photographs trump the eyewitnesses.

In the final analysis, the compelling photographic record constitutes proof that John Kennedy's jacket was raised when he was shot in the back. As a direct result, the "low" bullet holes in John Kennedy's shirt and jacket are not accurate indicators of the entry location, which must have been higher.

Article and graphics © 1999, 2002 John Hunt, Jr.